

ABSTRACT

Light from a light source 10 is linearly polarized by a polarizer 11. Then it propagates via a half-mirror 12 almost parallel to the normal to a reflective liquid-crystal panel 13 and falls on the reflective liquid-crystal panel 13. The reflected light reflected by the reflective liquid-crystal panel 13 is received by a detector 15 via the half-mirror 12 and an analyzer 14. In this state, the reflective liquid-crystal panel 13 is rotated about an axis almost parallel to the normal to the reflective liquid-crystal panel 13 and an angle (extinction angle) at which the output signal of detector 15 reaches minimum is measured. Then, the gap of the reflective liquid-crystal panel 13 is detected based on the measured extinction angle. It is also possible to measure the output signals of detector 15 by arranging the analyzer 14 in a state in which the transmission axis thereof is almost parallel to the polarization direction of the incident light and a state in which it is almost perpendicular thereto and to detect the gap of the reflective liquid-crystal panel 13 based on the measured signals.